

WHAT IS CLAIMED IS:

1 1. A liquid ejecting head, comprising:  
2 a passage unit, having a nozzle opening, a pressure generating chamber  
3 communicating with the nozzle opening, and a reservoir holding a liquid to be  
4 supplying to the pressure generating chamber;  
5 a head case, on which the passage unit is attached;  
6 a pressure generating element for applying variance of pressure to the  
7 pressure generating chambers, accommodated in a space defined in the head  
8 case; and  
9 a head substrate, closing an opening of the space of the head case,  
10 wherein an air sealing member is disposed between the head case and the  
11 head substrate.

1 2. The liquid ejecting head as set forth in claim 1, wherein the air sealing  
2 member is disposed between a sealing end face being opposed to a passage unit  
3 side of the head case and the head substrate.

1 3. The liquid ejecting head as set forth in claim 1, wherein the air sealing  
2 member is disposed so as to surround a periphery of the openings of the head.

1 4. The liquid ejecting head as set forth in claim 1, wherein the air sealing  
2 member is comprised of a low elastic material.

1 5. The liquid ejecting head as set forth in claim 4, wherein the low elastic

2 material is a gel material.

1 6. The liquid ejecting head as set forth in claim 2, wherein the air sealing  
2 member is a molded elastic part.

1 7. The liquid ejecting head as set forth in claim 2, wherein the air sealing  
2 member is an elastic sealing material having semi-fluidity.

1 8. The liquid ejecting head as set forth in claim 1, wherein an opening through  
2 which a conducting wire is passed is formed on the head substrate; and  
3 wherein the opening of the head substrate is sealed.

1 9. The liquid ejecting head as set forth in claim 1, wherein a through hole for  
2 leaking a gas formed on the head substrate is sealed by a sealing treatment.

1 10. The liquid ejecting head as set forth in claim 1, wherein the liquid ejecting  
2 head is served for an ink jet recording apparatus.

1 11. The liquid ejecting head as set forth in claim 1, wherein a groove is formed  
2 on either the head case or the head substrate; and  
3 wherein the air sealing member is disposed in the groove.

1 12. The liquid ejecting head as set forth in claim 11, wherein a protrusion is  
2 formed on either the head case or the head substrate so that the protrusion is  
3 opposed to the groove formed on other one of either the head case or the head

4 substrate; and

5 wherein the air sealing member disposed in the groove is crushed by the  
6 protrusion.

1 13. A liquid ejecting head, comprising:

2 a passage unit, having a nozzle opening, a pressure generating chamber  
3 communicating with the nozzle opening, a reservoir holding a liquid to be supplying  
4 to the pressure generating chamber, and a vibrating plate closing openings of the  
5 pressure generating chamber and the reservoir;

6 a head case, on which the passage unit is attached; and

7 a pressure generating element for applying variance of pressure to the  
8 pressure generating chambers, accommodated in a space defined in the head  
9 case,

10 wherein an air sealing member is disposed between the head case and the  
11 pressure generating element so as to form a space portion defined between the  
12 vibrating plate and the air sealing member.

1 14. The liquid ejecting head as set forth in claim 13, wherein a plurality of  
2 pressure generating elements are accommodated in the space of the head case.

1 15. The liquid ejecting head as set forth in claim 13, wherein the pressure  
2 generating element has an elongated shape in which a longitudinal direction thereof  
3 is parallel to a vibrating direction of the vibrating plate.

1 16. The liquid ejecting head as set forth in claim 13, wherein a space portion

2 between an inside face of the space in the head case and the pressure generating  
3 element is formed to be narrow toward the side of the vibrating plate.

1 17. The liquid ejecting head as set forth in claim 16, wherein the air sealing  
2 member is disposed at a part of the space portion which becomes narrower.

1 18. The liquid ejecting head as set forth in claim 13, wherein the air sealing  
2 member is comprised of a low elastic material.

1 19. The liquid ejecting head as set forth in claim 18, wherein the low elastic  
2 material is a gelled material.

1 20. The liquid ejecting head as set forth in claim 13, wherein the air sealing  
2 member has insularity.

1 21. The liquid ejecting head as set forth in claim 13, wherein the liquid ejecting  
2 head is served for an ink jet recording apparatus.